ORIGINAL (Red)

COMMONWEALTH of VIRGINIA

RICHARD N. BURTON
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

(804) 225-2667
TDD (804) 371-8737

May 27, 1993

RECEIVED
1993
SITE ASSESSMENT SECTION

Kevin J. Wood
USEPA Region III
Site Assessment Section
841 Chestnut Building
Philadelphia, PA 19107

Dear Kevin:

Attached is a copy of a site discovery form and a site characterization report that was done on the Charles/Williams Site located in Dumfries, Virginia.

The site is a 10 acre junkyard that contains an abandoned automobile junkyard, some sand pits an an undeveloped wooded area. The northern area of the site is Dewey Creek. The site is bound to the south by Route 234, east by Route 1 and west by residential townhouses. The Harris Group was contracted by the Resolution Trust Corporation to conduct environmental sampling of an orange substance observed at the site. The samples showed 22 priority pollutant metals were detected in the orange substance. The analysis for TPH revealed significant levels of contamination as well.

It is the opinion of the Site Assessment Program that this site should be considered for addition to the CERCLIS list due to potential threats to human health and the environment from the contamination. It is believed that this contamination may be related to abandoned automobiles that have been stored on site.

Please review the attached information to determine if you believe addition of this site to the CERCLIS list is appropriate. If you have any questions, please feel free to contact me at (804) 371-6037.

Sincerely,

Devlin Harris

Devlin M. Harris
Environmental Program Analyst

CC: Thomas Modena, Paul Kohler

Enclosure

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS W·STE SITE SITE IDENTIFICATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
VA	

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
CHARLES / WILLIAM [redacted]	17206 JEFFERSON DAVIS HIGHWAY.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
DUMFRIES	VA	22041	Prince Wm. County	153	

09 DIRECTIONS TO SITE (Starting from nearest public road)

Site is located at 17206 Jefferson Davis Highway in Dumfries, VA. Take 95 North get off on Route 1 in Dumfries. Route 1 is also Jeff Davis Highway.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, residential, mailing)
Unknown	17206 Jefferson Davis Highway

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Dumfries	VA		( ) unknown

07 OPERATOR (If known and different from owner)	08 STREET (Business, residential, mailing)
—	—

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

IV. HOW IDENTIFIED

01 DATE IDENTIFIED: / / (MONTH DAY YEAR)

02 IDENTIFIED BY (Check all that apply)

☐ A. CITIZEN COMPLAINT ☐ B. INDUSTRY ☐ C. STATE/LOCAL GOVERNMENT ☐ D. AERIAL RECONNAISANCE

☐ E. RCRA INSPECTION ☐ F. SURFACE IMPOUNDMENT ASSESSMENT ☐ G. OTHER EPA IDENTIFICATION

☒ H. OTHER Potential property owner. (Specify)

V. SITE CHARACTERIZATION

01 TYPE OF SITE (Check all that apply)

☒ A. STORAGE ☐ B. TREATMENT ☐ C. DISPOSAL ☐ D. UNAUTHORIZED DUMPING ☐ E. OTHER Junk yard. (Specify)

02 SUMMARY OF KNOWN PROBLEMS (Provide narrative description)

Site contains abandoned vehicles, drums, batteries and other debri associated with a junkyard. an Orange substance has been identified as leaching from certain parts of the junkyard and contains high TPH levels as well as other volatile contaminants. Samples Reveal 22 priority pollutant metals were detected.

03 SUMMARY OF ALLEGED OR POTENTIAL PROBLEMS (Provide narrative description)

The potential exists for this "ORANGE substance" to migrate to the Nearby creek. Other problems with batteries and Drums exist.

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
THE HARRIS Group, Inc.	Private Consultant	(703) 371-6400

04 PREPARED BY	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Deulin Harris	DEQ		(804) 371-6037	5 / 27 / 93 (MONTH DAY YEAR)

EPA FORM 2070-11 (7-81)

Submitted 10/05/93 KJWood

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

MAY 1993
SUPERFUND
(PRE-REMEDIAL)

To: Tom Modena

From: Kevin Greene

Date: May 24, 1993

Subject: Charles/ Williams Site
Dumfries, Virginia

Attached is a copy of report for the the above referenced facility. Please evaluate and determine if the Superfund Program has an interest in a follow up of the report.

Contact me at 527-5334 with any comments.

ENVIRONMENTAL CHARACTERIZATION

CHARLES/ WILLIAM SITE

DUMFRIES

PRINCE WILLIAM COUNTY, VIRGINIA

PREPARED FOR:

RTC CONTRACTING DEPARTMENT

PIEDMONT FEDERAL SAVINGS ASSOCIATION

PREPARED BY:

THE HARRIS GROUP, INC.
1801 ROBERT FULTON DRIVE, SUITE 200
RESTON, VA 22091-4347
(703) 391-6400

MAY 1993

EXECUTIVE SUMMARY

The Harris Group, Inc. was retained by the Resolution Trust Corporation, as a receiver for Piedmont Federal Savings Bank to perform [redacted] sampling of an orange substance observed at the Charles/ William site located in Dumfries, Virginia. The purpose of this sampling was to assess the nature of constituents in the orange substance and to recommend appropriate actions based on the sampling results.

The field program for this sampling activity consisted of a site reconnaissance and collection of two samples from observed locations of the orange substance. In addition, a third sample was collected to represent natural site conditions. All samples were analyzed for the complete USEPA Target Control List (TCL) and Total Petroleum Hydrocarbons (TPH) using EPA Method 418.1.

The analytical results indicate the orange substance consists of metals, volatile and semi-volatile organics, pesticides/PCBs, and petroleum hydrocarbons. Levels of these detected constituents were compared to available EPA and State standards for contaminants in soils. Based on these comparisons, exceedences were noted for Commonwealth of Virginia allowable TPH level and EPA action levels for metals.

Additional investigations are recommended to determine the presence and levels of detected constituents in deeper subsoils and groundwater at the site, and also, within sediments of Dewey Creek. Also, a wetlands survey is recommended to determine if the site is subject to U.S. wetlands regulations. These recommendations were based on the following considerations:

- Presence of contaminants in observed orange substance
- Exceedences of EPA and State standards by detected contaminants
- Proximity of observed orange substance to Dewey Creek
- Risks associated with potential environmental liabilities

The above recommended actions can be performed in accordance with Resolution Trust Corporations guidelines for a Limited Phase II Environmental Site Assessment.

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1.0 INTRODUCTION

1.1 PURPOSE

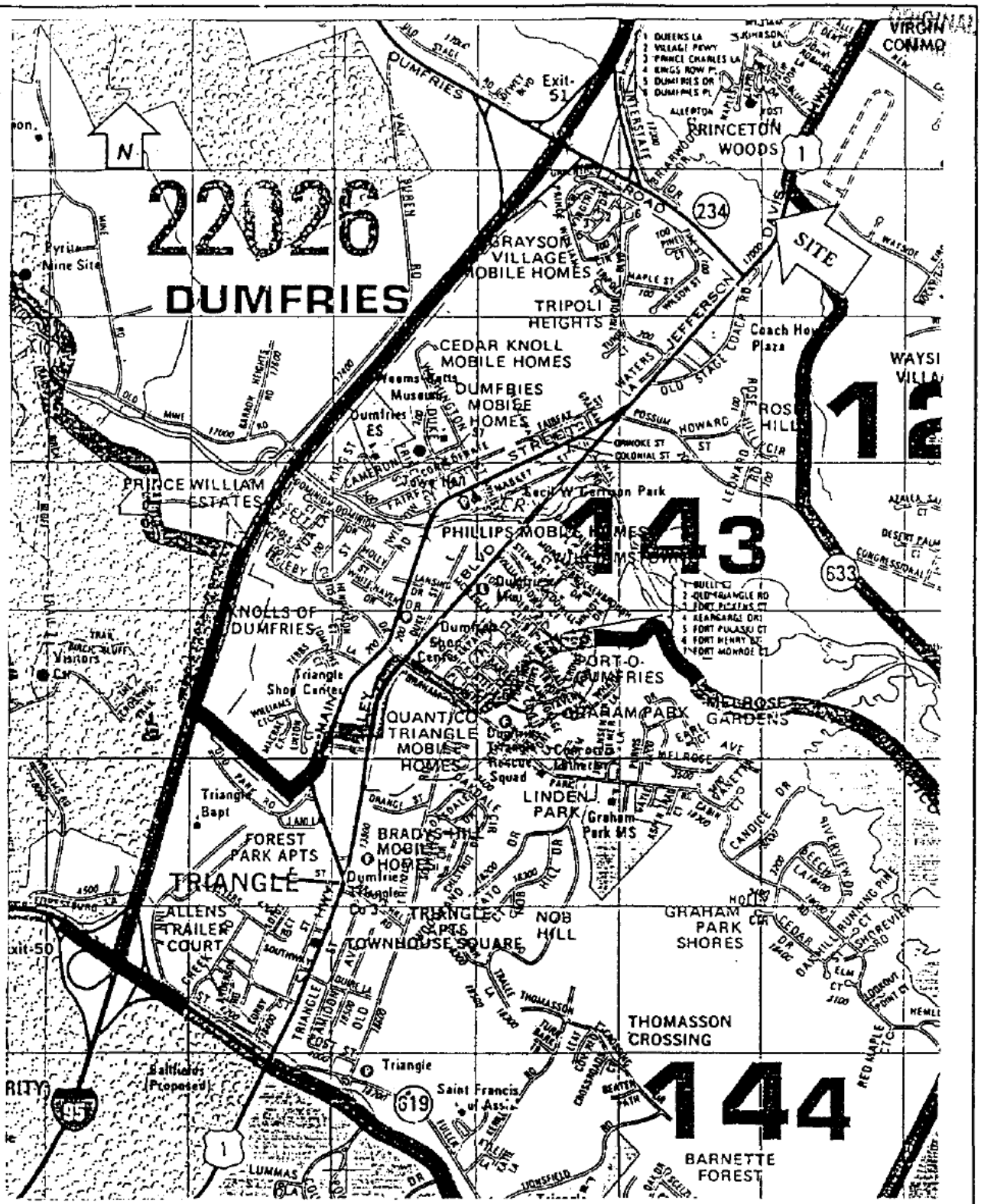
The Harris Group was contracted by the Resolution Trust Corporation to conduct environmental sampling of an orange substance observed at the Charles/ William site located at 17206 Jefferson Davis Highway (Route 1) in Dumfries, Virginia. The primary purpose of this report is to present findings of the environmental sampling and assess the nature of constituents detected in the orange substance.

This report documents and summarizes the field program, discusses the results of the laboratory analysis, evaluates detected analytes and presents recommendations.

1.2 SITE BACKGROUND

The Charles/ William site is located in the northern part of Dumfries, in Prince William County, Virginia (see Figue 1, page 2). The site is approximately 10 acres in size and contains an abandoned automobile junkyard, some sand pits and an undeveloped wooded area. The northern boundary of the site is Dewey Creek. The site is bound to the south by Route 234, east by Route 1 and west by residential townhouses.

Findings from the recent Phase I environmental assessment were unavailable for this sampling effort, however available information from Piedmont Federal Savings Bank indicates the planned future use of the site is retail/ commercial development. Additionally, relevant available information includes descriptions of the site topography and soils, including mention of possible wetlands around Dewey Creek. The topography of the site is described to be rolling with the southern portion sloping upwards from north to south. The soils on the site are described as Hatboro-Codorus along the creek and Lunt Loam and Quantico loam on the remainder of the property.



THE HARRIS GROUP, INC.

[redacted]

FIGURE 1

Site Location Map
(ADC of Alexandria Inc., 1991)

2.0 FIELD PROGRAM

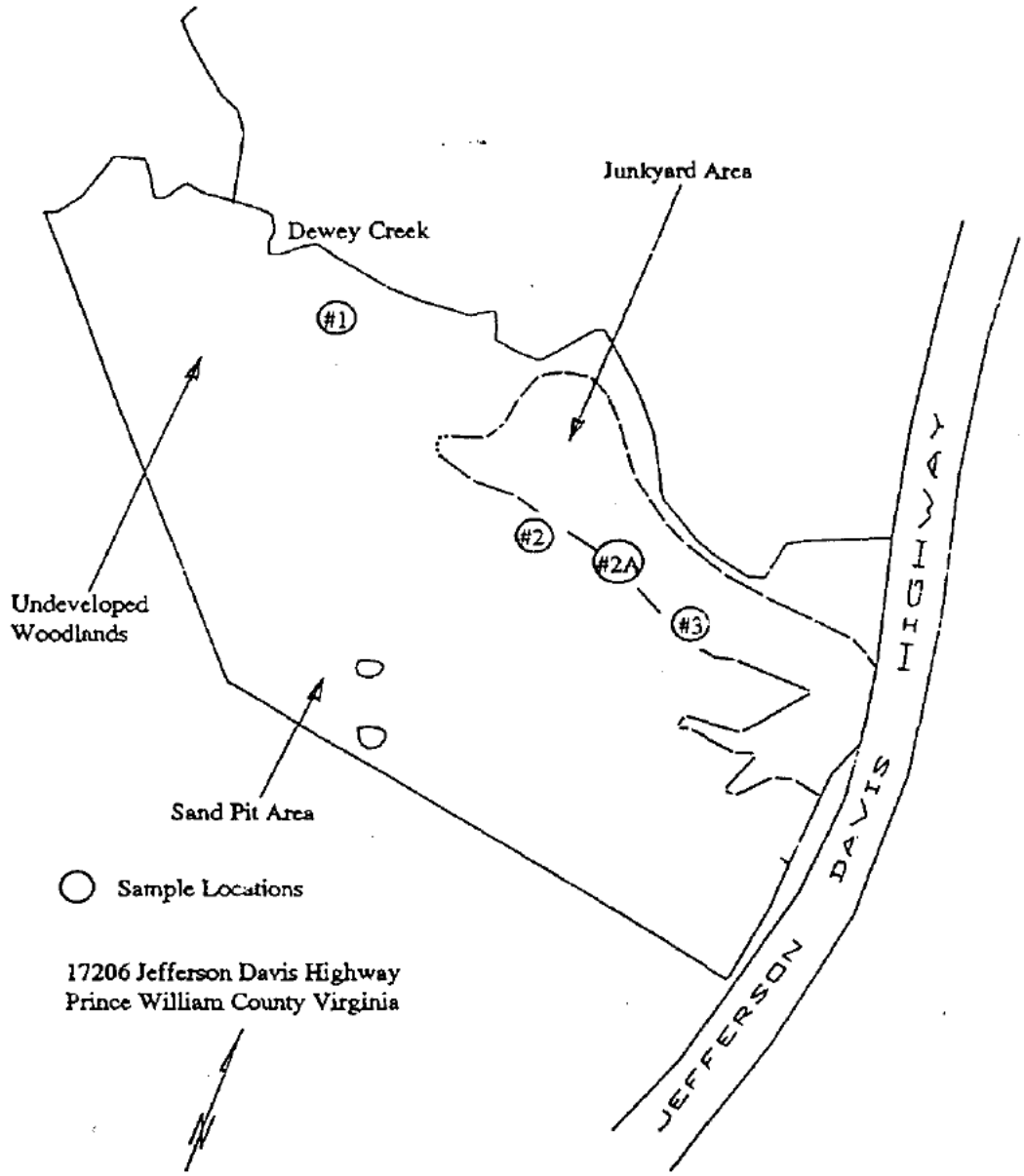
Environmental sampling and a site reconnaissance were performed at the Charles/ William site on April 26, 1993. Weather conditions were overcast and the temperature was in the mid 60 degrees Fahrenheit.

A total of three auger samples were collected from locations shown in Figure 2 (page 4). As shown on this figure, sample AUG-2 was collected from separate locations #2 and #2A. The sample collected at #2 was from an area where dried orange stains were observed among abandoned drums (see Appendix A, Exhibit 1). While the sample collected at #2A represents a more fluid-like substance spewing out from abandoned debris (see Appendix A, Exhibit 2). AUG-3 was collected from a separate location, #3, with conditions similar to those observed at 2A. AUG-1 was collected from the undeveloped wooded area (location #1) of the site (see Appendix A, Exhibit 3) where conditions appeared to be undisturbed and natural with extremely remote likelihood of environmental contamination.

The soil retrieved from AUG-1 was a moist, light brown, silty clay. At location #2 it appeared the dried orange substance was due to rusted 55-gallon drums within this location. The soils at #2A and #3 were wet, dark brown silts with the orange substance on the surface.

To reduce the potential for cross contamination from one sample location to the other, a sampling sequence hierarchy was imposed. The area less likely to be contaminated (location #1) was sampled before the areas more likely to be contaminated (locations #2, #2A and #3). Also, the hand auger was decontaminated between sampling locations. All collected samples were packed in ice filled coolers and transported to the laboratory under chain-of custody procedures.

Prior to environmental sampling, the entire site was walked. A sand pit was observed at the southern portion of the site (see Appendix A, Exhibit 4) and the undeveloped woodlands exist west of the abandoned automobile junkyard. Approximate locations of these site features are also shown on Figure 2, page 4.



THE HARRIS GROUP, INC.

[redacted]

FIGURE 2

Sampling Locations
(Graphic Revised from Kidde Consultants, Inc. Project No. 06-89081, July 1989)

From an environmental standpoint, the particular area of interest on the Charles/ William site is the abandoned automobile junkyard. Discarded tires, tools, batteries, 55-gallon drums, and fuel oil tanks were observed in this area (see Appendix A, Exhibit 5). Also observed were stains and odors associated with motor oil, gasoline and antifreeze. It appears that a significant portion of the abandoned automobile junkyard has been filled and surrounded with a temporary silt fence. The junkyard is also immediately upgradient of Dewey Creek (see Appendix A, Exhibit 6), which feeds into Quantico Creek, which in turn empties into the Potomac River, a sensitive water resource. The Potomac River is a source of water supply for a large number of residents within the metropolitan Washington DC area.

3.0 CHEMICAL ANALYSIS

On April 26, 1993, the auger samples AUG-1, AUG-2 and 2A, and AUG-3 were forwarded under chain-of-custody to Spectralytix Laboratory in Gaithersburg, Maryland. Samples AUG-1 and AUG-3 were analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 418.1 and the full USEPA scan, which includes priority pollutant, volatile organics, semivolatile organics, metals as well as pesticides/PCBs. AUG-2 was only analyzed for metals and AUG-2A was analyzed for the remainder of the USEPA scan including the TPH analysis. The rationale for a split sample (AUG-2 and 2A) was to effectively characterize the various forms of orange substance observed at the site. As mentioned in Section 2.0 of this report, AUG-2 represents the dried form of the orange substance which appeared to be related to rusted metals, while 2A represents a wet, mobile orange substance with relatively strong hydrocarbon odors.

Upon receipt of the analytical data (see Appendix B) from the laboratory, the data were validated to eliminate unusable data. Laboratory flags provided the means by which unusable data were determined. Flags are standard EPA qualifiers used to scrutinize analytical data. For the purpose of this sampling effort, unusable data are classified as non-detects, flagged "U", and those data (non-metals) associated with laboratory blank contamination, flagged "B". Flagged data other than "B" for non-metals or "U" are probably due to inherent limitations of the analytical method. Other flagged data will be applied with skepticism when assessing the constituents of the orange substance along with the positively detected non-flagged data.

Although a detailed quality assurance and control program to include field/ trip blanks and replicate samples was not implemented, the data presented in Appendix B is acceptable for the purposes of this environmental characterization. An extensive level of detail would have been unnecessary and expensive considering the level of sampling performed.

4.0 ASSESSMENT OF ANALYTICAL DATA

The assessment of the orange substance observed at the Charles/ William site is based on analytical results of the auger samples. Only positively detected constituents in the samples are applied in this assessment. The following subsections evaluate the detected constituents, and in addition present a comparative analysis with available State and EPA acceptable levels.

4.1 EVALUATION OF DETECTED CONSTITUENTS

Table 1 (page 7) provides a summary of metals detected in the samples. Twenty-two priority pollutant metals were detected in the orange substance observed at the site. Because metals are ubiquitous in nature, the analytical results of AUG-2 and AUG-3 were compared to the metal concentrations in AUG-1 (represents natural site conditions) to determine if elevated concentrations of metals are present in the orange substance. As indicated on the table, except for aluminum, barium, mercury and thallium, all other detected metals were present at higher concentrations in either AUG-2 or AUG-3 compared to similar constituents in AUG-1.

Concentrations of copper (35.8 mg/kg) and iron (43500 mg/kg) in AUG-2 exceed significantly the levels detected in AUG-1, (7.9- and 12300 mg/kg, respectively). In sample AUG-3, the following metallic constituents were detected at relatively higher concentrations compared to similar constituents in the background sample; calcium (10600 mg/kg), iron (20400 mg/kg), lead (710 mg/kg), potassium (1470 mg/kg) and zinc (240 mg/kg) . Of particular concern is the level of lead in AUG-3 (710 mg/kg). This level exceeds the range of typical concentrations for eastern U.S. soils.

Table 2 (page 8) provides a summary of non-metallic constituents detected, which include volatile organic compounds (VOCs), semivolatile organic compounds

TABLE 1

Summary of Metals in Samples Collected at Charles/ William Site, Dumfries Virginia

Metals	Detected Concentration (mg/kg)			Eastern United States Concentration Range (mg/kg) (a)
	AUG-1	AUG-2	AUG-3	
Aluminum	10500	3100	10100	11,000 (b)
Antimony	*	*	0.53	NA
Arsenic	1.4	1.4	2.3	0.10 - 73
Barium	98.3	84.7	71.1	10 - 1500
Beryllium	0.92	1.6	0.66	<1 - 7
Cadmium	*	*	1.5	NA
Calcium	232 (B)	408	10600	NA
Chromium	10.2	9.4	19.8	1.00 - 1000
Cobalt	14.8	42.2	7.2	<0.3 - 70
Copper	7.9	35.8	39.5	<1 - 700
Iron	12300	43500	20400	70,000 (b)
Lead	15.6	12.8	710	<10 - 300
Magnesium	791	586	2670	NA
Manganese	379	1510	182	NA
Mercury	0.036	*	*	<0.01 - 3.4
Nickel	*	29.5	14.8	<5 - 700
Potassium	538	282 (B)	1470	NA
Selenium	0.15 (B)	0.17	0.14 (B)	<0.1 - 3.9
Sodium	168 (B)	508	461 (B)	NA
Thallium	0.24 (B)	*	*	NA
Vanadium	19.5	20.2	26	<7 - 300
Zinc	34.2	68.6	240	<5 - 2900

NA Not Available

(a) Shacklette and Boerngen, 1984, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States (USGS Paper 1270)

(b) Maximum value measured by the USGS in surficial soils in Maryland; USGS Open-file Report 81-197, 1981

(B) Concentration Qualifier - The reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).

* Analyzed for but not detected.

TABLE 2

Summary of Non-Metals in Samples Collected at Charles/ William Site, Dumfries Virginia

Compounds	Detected Concentrations		
	AUG-1	AUG-2A	AUG-3
Volatile Organics (UG/KG)			
Methylene Chloride	8 (J)	*	16
Acetone	*	*	130
2-Butanone	3 (J)	*	60
Benzene	*	32 (J)	7 (J)
Toluene	*	100	120
Ethylbenzene	*	160	64
Total Xylenes	*	720	430 (E)
Semivolatile Organics (UG/KG)			
Naphthalene	*	600	260
2-Methylnaphthalene	*	670	370
Phenanthrene	*	560	680
Anthracene	*	200 (J)	300 (J)
Fluoranthene	*	490	780
Pyrene	*	400	560
Benzo (a) Anthracene	*	*	230 (J)
Bis (2-Ethylhexyl) Phthalate	*	1800	5700 (E)
Chrysene	*	*	260 (J)
Benzo (b) Fluoranthene	*	*	260 (J)
Benzo (k) Fluoranthene	*	*	120 (J)
Pesticides/PCBs (UG/KG)			
4,4-DDE	*	*	3.7
4,4-DDD	*	*	23
4,4-DDT	*	*	31
Endrin Aldehyde	*	*	2.3 (J)
alpha-Chlordane	*	*	4.5
gamma-Chlordane	*	*	4.8
Total Petroleum Hydrocarbons (mg/kg)			
Test Results (EPA 418.1)	2	60	670

* Analyzed for but not detected or found in a laboratory blank.

(J) Indicates an estimated value.

(E) Identifies compounds whose concentration exceeds the calibration range of the GC/MS instrument for that specific analysis.

(SVOC), pesticides/PCBs and TPH. The only constituents present in the background sample (AUG-1) were methylene chloride and 2-butanone detected at estimated concentrations below the quantitation limit of 10 ug/kg. The VOC detected at the highest concentration was total xylenes (720 ug/kg) in AUG-2. Common VOCs, benzene, toluene, ethylbenzene and xylenes (BTEX) were detected in both AUG-2A and AUG-3.

Semivolatile organic compounds (SVOCs) were also detected in samples AUG-2A and AUG-3. The SVOC detected at the highest concentration was bis (2-ethylhexyl) phthalate in AUG-3 at 5700 ug/kg and in AUG-2A at 1800 ug/kg. These levels of bis (2-ethylhexyl) phthalate are very likely to be laboratory contaminants and not reflective of the orange substance. However, other SVOCs were detected at relatively high levels in these samples.

Pesticides and PCBs were only detected in AUG-3. The range of pesticides detected ranged from 3.7 ug/kg (4,4-DDD) to 31 ug/kg (4,4'-DDT). The PCB detected at the highest concentration was gamma-Chlordane (4.8 ug/kg).

The analysis for TPH revealed an insignificant level in AUG-1 and relatively high concentrations in AUG-2A (60 mg/kg) and AUG-3 (670 mg/kg).

4.2 COMPARISON WITH STATE AND EPA LEVELS

A comparison of the analytical results presented in Tables 1 and 2 to available EPA action levels and Virginia State standards identified constituents which exceed these limits. The Federal Register Volume 55, No. 145 (July 27, 1990) lists EPA's "Examples of Concentrations Meeting Criteria for Action Levels." EPA's intended use of these action levels is revealed by the following statement from the Federal Register text: "Action levels should be distinguished from cleanup standards, which are determined later in the corrective action process. Concentrations exceeding action levels indicates a potential threat to human health or the environment which may require further study." The Virginia State Water Control Board regulates petroleum related substances present in soils and groundwater. State standards exist for some contaminant constituents, however, decisions on corrective actions are usually conducted on a site specific basis.

Comparison of the detected constituents to available EPA Action Levels indicate exceedences of lead and chrysene. Interim action levels for lead and

chrysene are 500 mg/kg and 0.06 ug/kg, respectively. Lead and chrysene were detected in AUG-3 at 710 mg/kg and 0.26 ug/kg, respectively.

The allowable State standard for TPH in soils (100 mg/kg) was also exceeded in AUG-3 (670 mg/kg).

5.0 CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the field program and analytical data indicate past disposal and storage practices of automobile parts, drums and other debris at the Charles/ William site has resulted in the release of contaminants at the site. As evidenced in the chemical data of the orange substance, the site has been impacted by metals, VOCs, SVOCs, pesticides/PCBs and petroleum hydrocarbons. Also, the potential exists that these constituents are present in deeper subsoils, surficial soils, sediments of Dewey Creek, and groundwater at levels that exceed State and EPA standards.

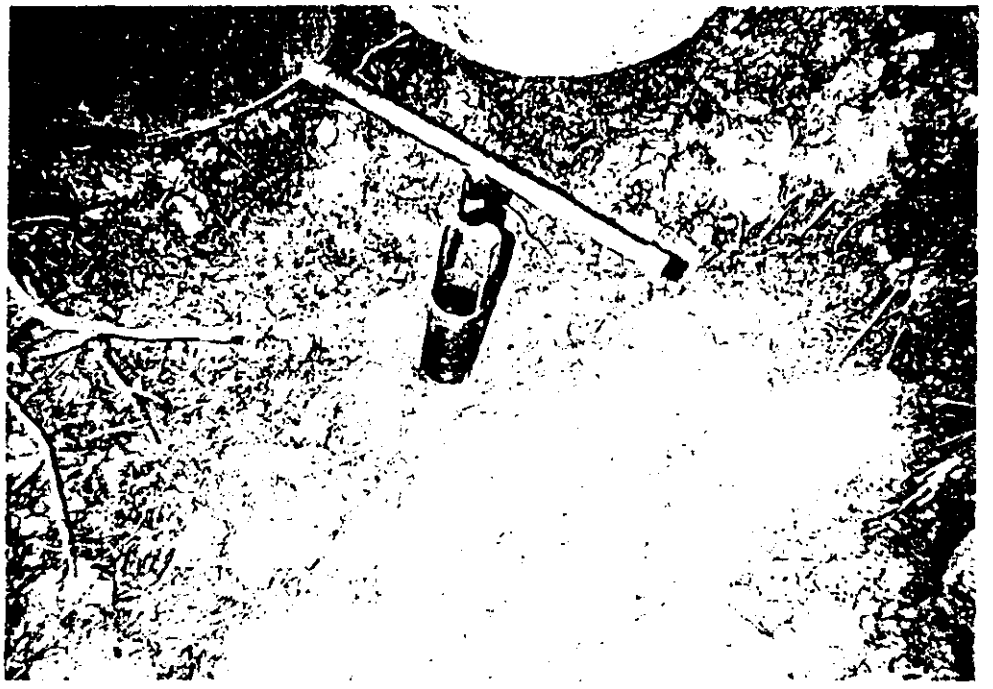
5.1 RECOMMENDATIONS

Considering the planned use of the site is retail/ commercial development, it is recommended that additional investigations be conducted to determine the presence and level of contaminant constituents in soils, groundwater and the sediments of Dewey Creek. This recommended action will enable an analysis of potential risks to future construction workers and site residents.

Also, we strongly recommend that the Commonwealth of Virginia be contacted on the current and future environmental actions on this site because of potential threats to human health and water resources of the State. Timely contact with the State may forestall any possible penalties associated with widespread violations of State standards and in addition, may help prevent or minimize potential liabilities. The appropriate State office to contact is the Virginia State Water Control Board.

We also recommend a wetlands survey be implemented prior to site development, in order to avoid possible violations of U.S. wetland regulations.

The above recommendations can be performed in accordance with Resolution Trust Corporation guidelines for a limited Phase II Environmental Site Assessment.



THE HARRIS GROUP, INC.	EXHIBIT 1
Environmental Services 1801 Robert Fulton Drive, Suite 200 Reston, VA 22091-4347	**Auger sampling at location (#2) of dried orange substance**

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-1.

Lab Name: Spectralytix Contract: 9304053

Lab Code: Case No.: THG93-003 SAS No.: 3042-002 SDG No.:

Matrix (soil/water): SOIL Lab Sample ID: 93041527

Level (low/med): LOW Date Received: 04/26/93

% Solids: 71.9

Concentration Units (ug/L or mg/kg dry weight): mg/kg dry wt.

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10500			P
7440-36-0	Antimony	0.25	U		F
7440-38-2	Arsenic	1.4		N	F
7440-39-3	Barium	98.3			P
7440-41-7	Beryllium	0.92			P
7440-43-9	Cadmium	1	U		P
7440-70-2	Calcium	232	B		P
7440-47-3	Chromium	10.2			P
7440-48-4	Cobalt	14.8			P
7440-50-8	Copper	7.9			P
7439-89-6	Iron	12300			P
7439-92-1	Lead	15.6			F
7439-95-4	Magnesium	791			P
7439-96-5	Manganese	379			P
7439-97-6	Mercury	0.036			CV
7440-02-0	Nickel	2.5	U		P
7440-09-7	Potassium	538			A
7782-49-2	Selenium	0.15	B	N	F
7440-22-4	Silver	1	U		P
7440-23-5	Sodium	168	B		P
7440-28-0	Thallium	0.24	B		F
7440-62-2	Vanadium	19.5		N	P
7440-66-6	Zinc	34.2			P
	Cyanide	1	U		C

Color Before: Brown Clarity Before: Texture: M

Color After: Yellow Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE

AUG-2.

Lab Name: Spectralytix Contract: 9304053

Lab Code: Case No.: THG93-003 SAS No.: 3042-002 SDG No.:

Matrix (soil/water): SOIL Lab Sample ID: 93041528

Level (low/med): Date Received: 04/26/93

% Solids: 79.8

Concentration Units (ug/L or mg/kg dry weight): mg/kg dry wt.

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3100			P
7440-36-0	Antimony	0.25	U		F
7440-38-2	Arsenic	1.4		N	F
7440-39-3	Barium	84.7			P
7440-41-7	Beryllium	1.6			P
7440-43-9	Cadmium	1	U		P
7440-70-2	Calcium	408			P
7440-47-3	Chromium	9.4			P
7440-48-4	Cobalt	42.2			P
7440-50-8	Copper	35.8			P
7439-89-6	Iron	43500			P
7439-92-1	Lead	12.8			F
7439-95-4	Magnesium	586			P
7439-96-5	Manganese	1510			P
7439-97-6	Mercury	0.02	U		CV
7440-02-0	Nickel	29.5			P
7440-09-7	Potassium	282	B		A
7782-49-2	Selenium	0.17		N	F
7440-22-4	Silver	1	U		P
7440-23-5	Sodium	508			P
7440-28-0	Thallium	0.14	U		F
7440-62-2	Vanadium	20.2		N	P
7440-66-6	Zinc	68.6			P
	Cyanide	1	U		C

Color Before: Brown Clarity Before: Texture:

Color After: Yellow Clarity After: Artifacts:

Comments:

U.S. EPA - CLP
1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-3.

Lab Name: Spectralytix Contract: 9304053

Lab Code: _____ Case No.: THG93-003 SAS No.: 3042-002 SDG No.: _____

Matrix (soil/water): SOIL Lab Sample ID: 93041530

Level (low/med): _____ Date Received: 04/26/93

% Solids: 74.6

Concentration Units (ug/L or mg/kg dry weight): mg/kg drywt

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100			P
7440-36-0	Antimony	0.53			F
7440-38-2	Arsenic	2.3		N	F
7440-39-3	Barium	71.1			P
7440-41-7	Beryllium	0.66			P
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium	10600			P
7440-47-3	Chromium	19.8			P
7440-48-4	Cobalt	7.2			P
7440-50-8	Copper	39.5			P
7439-89-6	Iron	20400			P
7439-92-1	Lead	710			F
7439-95-4	Magnesium	2670			P
7439-96-5	Manganese	182			P
7439-97-6	Mercury	0.02	U		CV
7440-02-0	Nickel	14.8			P
7440-09-7	Potassium	1470			A
7782-49-2	Selenium	0.14	B	N	F
7440-22-4	Silver	1	U		P
7440-23-5	Sodium	461	B		P
7440-28-0	Thallium	0.14	U		F
7440-62-2	Vanadium	26		N	P
7440-66-6	Zinc	240			P
	Cyanide	1	U		C

Color Before: Brown Clarity Before: _____ Texture: _____

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-1

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041527

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B04249

Level: (low/med) LOW Date Received: 04/26/93

Moisture: not dec. _____ Date Analyzed: 04/27/93

Column: (pack/cap) _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	BJ
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-35-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U
		10	U
		10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-2A

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041529

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B04250

Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. _____ Date Analyzed: 04/27/93

Column: (pack/cap) _____ Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	40	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-35-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	27	
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	50	
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	230	E
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	200	
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	1100	E
		10	U
		10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-3

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041530

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B04251

Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. ____ Date Analyzed: 04/27/93

Column: (pack/cap) _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	16	B
67-64-1	Acetone	130	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-35-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	60	
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	7	J
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	120	
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	64	
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	430	E
		10	U
		10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-1

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041527

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A05003

Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/29/93

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/03/93

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	330	U
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-1

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041527

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A05003

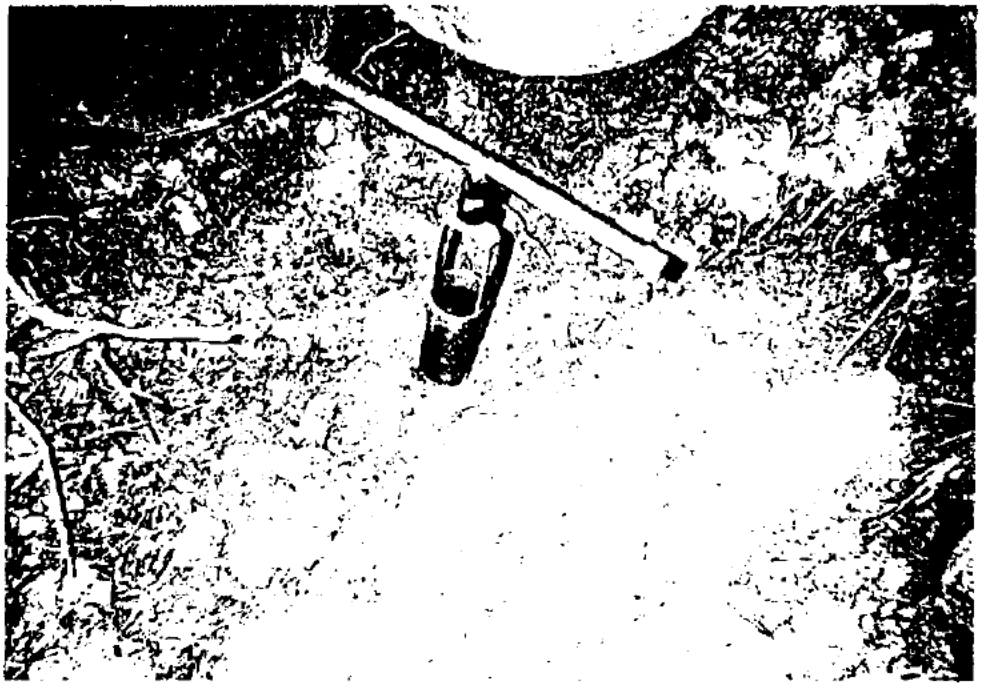
Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/29/93

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/03/93

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	2,2'-Oxyis-(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U



THE HARRIS GROUP, INC.

[redacted]

EXHIBIT 1

Auger sampling at location (#2) of dried orange substance

THE HARRIS GROUP, INC.

[redacted]

EXHIBIT 2

Auger sampling at location
2A (top) and 3 (bottom)

THE HARRIS GROUP, INC.

[redacted]

EXHIBIT 3

Undeveloped woodlands and location of background sample, #1

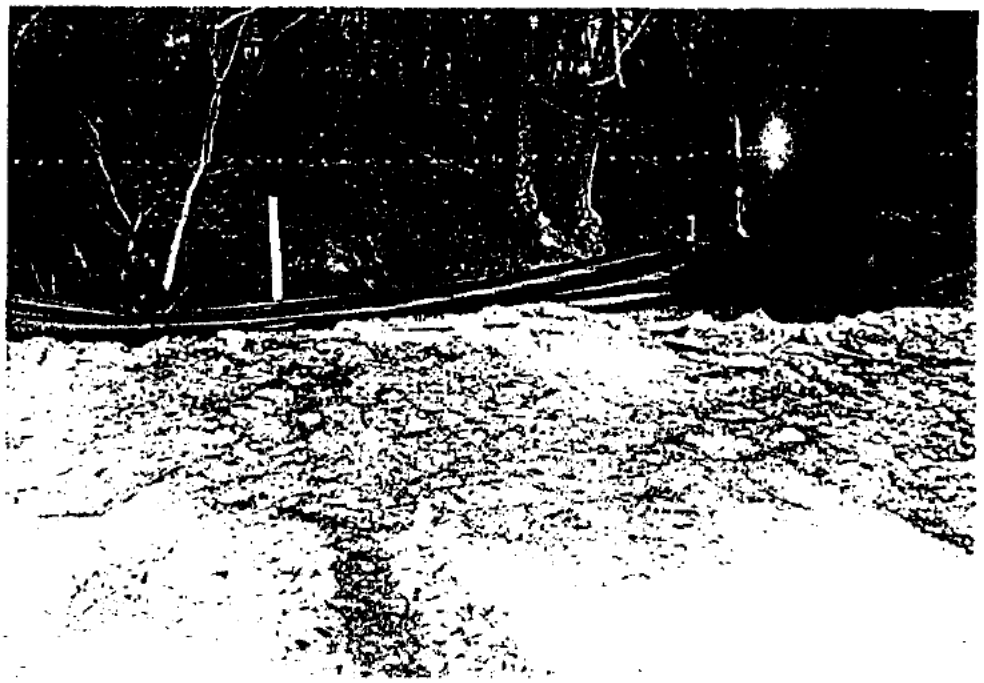
THE HARRIS GROUP, INC.	EXHIBIT 4
[redacted]	View of sand pit looking east

THE HARRIS GROUP, INC.

[redacted]

EXHIBIT 5

Abandoned drums and junk



THE HARRIS GROUP, INC.

[redacted]

EXHIBIT 6

Mobile orange substance flowing towards Dewey Creek (top)

Fill and temporary silt fence (Bottom)

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-2A

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041529

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A05001

Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. ____ dec. ____ Date Extracted: 04/29/93

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/03/93

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	2,2'-Oxyis-(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	600	
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	670	
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-2A

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041529

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A05001

Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. _____ dec. _____ Date Extracted: 04/29/93

Extraction: (SepF/Cont/Sonc) _____ Date Analyzed: 05/03/93

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	560	
120-12-7	Anthracene	200	J
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	490	
129-00-0	Pyrene	400	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	1800	
218-01-9	Chrysene	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	150	J
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AUG-3

Lab Name: SPECTRALYTIX Contract: SP-1

Lab Code: SPX Case No.: THG003 SAS No.: _____ SDG No.: 1

Matrix: (soil/water) SOIL Lab Sample ID: 93041530

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A05002

Level: (low/med) LOW Date Received: 04/26/93

% Moisture: not dec. _____ dec. _____ Date Extracted: 04/29/93

Extraction: (SepF/Cont/Sonc) _____ Date Analyzed: 05/03/93

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	120	J
100-10-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-Methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	680	
120-12-7	Anthracene	300	J
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	780	
129-00-0	Pyrene	560	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	230	J
117-81-7	Bis(2-Ethylhexyl)Phthalate	5700	E
218-01-9	Chrysene	260	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	260	J
207-08-9	Benzo(k)Fluoranthene	120	J
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

PESTICIDE ORGANICS ANALYSIS
ANALYSIS DATA SHEET

EPA SAMPLE ID

AUG-1

Lab Name: Specialytix

Contract: _____

Lab Code: _____ Case No: THG93-003 SAS No.: 3042-002 SDG No. _____

Matrix: Soil

Lab Sample ID: 93041527

Sample Wt: 30.36 g.
% Moisture: _____

Lab File ID: E2848-01.D01
Date Received: 04/26/93

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 04/28/93

Concentrated Extract Volume: 10.000 ul

Date Analyzed: 04/29/93

Injection Volume: 2 ul

Dilution Factor: 1

GPC Cleanup: N pH: 7

Sulfur Cleanup: _
CONCENTRATION UNITS:
(ug/L or ug/kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-8	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	1.7	U
72-57-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin Aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

PESTICIDE ORGANICS ANALYSIS
ANALYSIS DATA SHEET

EPA SAMPLE ID

AUG-2A

Lab Name: Spectralytix

Contract: _____

Lab Code: _____ Case No: TH093-003 SAS No.: 3042-002 SDG No. _____

Matrix: Soil

Lab Sample ID: 93061529

Sample Wt: 30.17 g.
% Moisture: _____

Lab File ID: E2849-01.D01
Date Received: 04/26/93

Extraction: (SepF/Conc/Sonc) SONC

Date Extracted: 04/28/93

Concentrated Extract Volume: 10,000 ul

Date Analyzed: 04/29/93

Injection Volume: 2 ul

Dilution Factor: 1

GPC Cleanup: N pH: 7

Sulfur Cleanup: _

CONCENTRATION UNITS:
(µg/L or ug/kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-8	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	1.7	U
72-57-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin Aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

PESTICIDE ORGANICS ANALYSIS
ANALYSIS DATA SHEET

EPA SAMPLE ID

AUG-3

Lab Name: Spectralytix Contract: _____

Lab Code: _____ Case No: THG93-003 SAS No.: 3042-002 SDG No. _____

Matrix: Soil Lab Sample ID: 93041530

Sample Wt: 30.44 g. Lab File ID: E2850-01.D01

% Moisture: _____ Date Received: 04/26/93

Extraction: (SepF/Cono/Sono) SONC Date Extracted: 04/28/93

Concentrated Extract Volume: 10,000 ul Date Analyzed: 04/29/93

Injection Volume: 2 ul Dilution Factor: 1

GPC Cleanup: N pH: 7 Sulfur Cleanup: _____

CONCENTRATION UNITS: (ug/L or ug/kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-8	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	1.7	U
72-57-9	4,4'-DDE	3.7	
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	23	
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	31	
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin Aldehyde	2.3	J
5103-71-9	alpha-Chlordane	4.5	
5103-74-2	gamma-Chlordane	4.8	
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

Total Petroleum Hydrocarbons
EPA Method 418.1

Lab Name: Spectralytix
Lab Code: _____ Case No: THG93-003 SAS No: 3042-002
Matrix: Soil
Date Received: 04/26/93 Date Analyzed: 04/28/93

Client Sample ID #	Spectralytix Sample ID #	Test Results(mg/kg)	Detection Limits (mg/kg)
AUG-1	93041527	2	0.5
AUG-2A	93041529	60	0.5
AUG-3	93041530	670	0.5

Units of mg/L are equivalent to ppm.
ND = Compound not detected at or above the listed detection limit.